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SOME BIRDS OF SOUTHWESTERN MONTANA

By ARETAS A. SAUNDERS

WITH ONE MAP

THE REGION covered by this list includes Deer Lodge, Silver Bow, Jefferson, and the southern portion of Powell counties, Montana. It is mountainous in character, extending from about 4100 feet to over 11,000 feet in elevation. The continental divide crosses the region from southwest to northeast. There are two main valleys in the region, the Deer Lodge valley, west of the continental divide, and the Jefferson valley, east of it. These valleys extend from 4100 to 5500 feet in elevation and lie in the Transition Zone. The mountains are principally above 5500 feet and lie in the upper Transition, Canadian and Hudsonian zones.

The valleys consist of open grass lands, the better parts of which are settled and under irrigation, crossed by streams that are lined with thickets of willow and

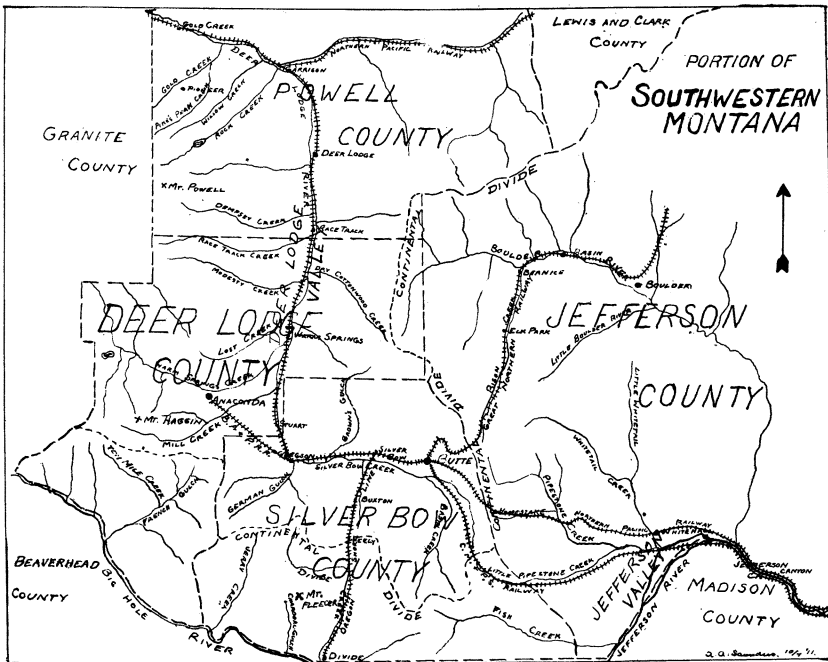


Fig. 12

groves of cottonwood. The mountains form the richest mining district of Montana. They are very rough and rocky in character, and are covered with evergreen forests, consisting principally of lodgepole pine, Douglas fir, Engelmann spruce and alpine fir. A large part of this timber, particularly in the near vicinity of Butte and Anaconda, has been cut over, so that a large amount of the present stand consists of second growth.

The material for this list is obtained almost entirely from my own observations. These covered a period from August, 1909, to June, 1911, with one or two short absences, principally during the winter months. During this period I was assigned to work on the Deerlodge National Forest, and in the course of the work covered the mountainous parts of the region quite thoroughly. Observations in the valleys

were much less thorough and covered shorter periods of time, and for that reason I feel that the list of valley birds is far from complete. Although this is the most thickly settled portion of Montana, there has, to my knowledge, been nothing previously published by other observers on the birds of this region. For a more extended account of the nesting habits of some of the birds listed the reader is referred to *THE CONDOR*, XII, pp. 195-204.

***Colymbus nigricollis californicus*.** Eared Grebe. Migrant. A flock numbering approximately 175 was seen on Rock Creek Lake, Powell County, on September 17, 1910. This flock was composed mostly of young birds, who kept together in a body in the middle of the lake, and appeared to be resting but not feeding. A wounded bird of this species was captured near Butte in late May, 1911, and kept alive for several days in a small tank in a café window in Anaconda.

***Mergus serrator*.** Red-breasted Merganser. Seen near Buxton, Silver Bow County, on May 6, 1910, and near Anaconda, Deer Lodge County, May 1, 1911.

***Anas platyrhynchos*.** Mallard. A common migrant in the valleys. A few remain to breed in suitable localities, and a few also winter wherever warm springs keep the water from freezing. The first spring migrants are usually seen early in April.

***Mareca americana*.** Baldpate. Seen near Buxton May 7, 1910, and near Anaconda on several occasions from April 20 to May 27, 1911.

***Nettion carolinense*.** Green-winged Teal. An abundant migrant and probably also a summer resident. Late in August, 1910, both this and the next species became very abundant throughout the Deer Lodge valley. Residents of the region claimed that they were much more abundant than usual at that season, and believed that it was because of the forest fires that were raging at that time farther north and west in Montana, which had driven them from their breeding grounds earlier than usual. The same was true of the Mallard to a lesser extent, and perhaps of other species of ducks. Migration dates for this species are April 23, 1910, April 23, 1911, and October 30, 1910. It winters rarely, as one was observed near Anaconda January 8, 1911.

***Querquedula discors*.** Blue-winged Teal. Common migrant and probably also summer resident. Migration dates are April 23, 1911, and September 26, 1910.

***Querquedula cyanoptera*.** Cinnamon Teal. I saw a pair of these birds on the Silver Bow marshes, May 21, 1911.

***Spatula clypeata*.** Shoveller. Common migrant. Observed September 25, 1910, and from April 30 to May 14, 1911.

***Clangula clangula americana*.** Golden-eye. A common winter resident in the canyon of the Jefferson River below Whitehall.

***Erismatura jamaicensis*.** Ruddy Duck. An adult female of this species was captured alive near Anaconda in October, 1910, and was kept alive in a small tank in a café window for some time, in company with a Green-winged Teal and a Coot.

Branta canadensis (subspecies?). Canada Goose. A regular migrant. Seen in flight overhead, but seldom alighting in this region and rarely secured by hunters.

***Olor columbianus*.** Whistling Swan. A regular migrant. In my list of the Birds of Gallatin County, Montana (*Auk* XXVIII, pp. 26-49), I recorded this species as the common migrant swan, though with considerable hesitation because there were no definite data to show that this species had ever occurred in Montana. Recently, however, I have strengthened my belief that this is the common migrant species in the state, by examining two specimens. One of these consists of the head and wing of a young bird that was shot by Mr. Rheesis Fransham in the

Gallatin Canyon. The other was the remains of an adult that I found on the shores of an alkaline lake near Chouteau, Teton County, the head and bill of which were uninjured. From the position of the nostril I identified both of these birds as *O. columbianus*. For this reason I have listed *O. columbianus* as the species occurring in this region. I believe that the Trumpeter Swan (*O. buccinator*) occurs, and still breeds in some favored portions of the state, but the proof is lacking and it is certainly not as common as *O. columbianus*.

Ardea herodias herodias. Great Blue Heron. Summer resident along the Jefferson River. Not seen elsewhere.

Grus mexicana. Sandhill Crane. A pair seen in the Deer Lodge valley near Stuart, April 16, 1911.

Porzana carolina. Sora. Noted several times in the Pipestone Basin, Jefferson County, in June, 1910, and in the marshes near Anaconda May 14, 1911.

Fulica americana. Coot. An occasional migrant in the Deer Lodge valley.

Recurvirostra americana. Avocet. An occasional migrant in the Silver Bow marshes in August and September. Local hunters call them "English Curlew".

Gallinago delicata. Wilson Snipe. A common migrant throughout the region, and an occasional summer resident. I found a nest of this species in Pipestone Basin, Jefferson County, on June 12, 1910.

Helodromas solitarius solitarius. Solitary Sandpiper.

Helodromas solitarius cinnamomeus. Western Solitary Sandpiper. This species is a common fall migrant throughout the region in August and September. On August 20, 1910, I secured specimens referable to both subspecies on Gold Creek, Powell County.

Actitis macularius. Spotted Sandpiper. A common summer resident throughout the region. On July 31, 1911, I found young of the year quite abundant along the Hell Gate River, Powell County. One half-grown bird that was unable to fly, got cornered between a steep bank and a small pool of water while running away from me, and, when I followed, took to the water and swam to escape me. The water was but a few inches deep and I waded out to catch it, when it surprised me by diving and swimming under water. It could be plainly seen under water, and used both wings and feet. The plumage while under water was covered with air bubbles which gave it a silvery appearance.

Numenius americanus. Long-billed Curlew. Summer resident of the Lower Jefferson and Deer Lodge valleys. Seen in migration once near Anaconda, May 14, 1911.

Oxyechus vociferus. Killdeer. Common summer resident in the valleys, particularly in the cultivated and irrigated sections. Migration dates are April 8, 1910, and September 13, 1910.

Colinus virginianus virginianus. Bob-white. Introduced locally in the Deer Lodge valley, but not yet common.

Dendragapus obscurus richardsoni. Richardson Grouse. Resident in the mountains. Becoming quite scarce, particularly in the vicinity of Butte.

Canachites franklini. Franklin Grouse. Resident of the higher mountains. I believe that Jefferson County forms the eastern limit of the range of this species in Montana. Experience seems to show that in Montana this species ranges east to the eastern slopes of the continental divide, but is not found in any of the mountain ranges that are entirely east of the divide. A male bird secured in Jefferson County in October, 1909, had the white-tipped tail of this species but lacked the white markings of the upper tail coverts. Dr. L. B. Bishop examined this specimen and considered it a probable hybrid between this species and *C. canadensis*.

Bonasa umbellus togata. Canadian Ruffed Grouse. Common permanent resident throughout the region. To date I have not met *B. u. umbelloides* anywhere in southwestern Montana, but all the birds I have taken or seen closely have been referable to *B. u. togata*. I believe that further investigation will show that *B. u. umbelloides* is a bird of lower elevations, occurring commonly in eastern and northwestern Montana but entirely replaced by *B. u. togata* in southwestern Montana, where even the valleys are mostly above 4500 feet in elevation.

Pedioecetes phasianellus (subspecies?). Sharp-tailed Grouse. Resident of the Jefferson and Deer Lodge valleys. Now quite rare in the latter place. I have taken no specimens and am not certain which subspecies the birds are referable to.

Centrocerus urophasianus. Sage-hen. Hunters familiar with this region in the past, state that the Sage-hen was formerly abundant in the sage-brush plains about Silver Bow. It is now probably entirely extinct in the region.

Zenaidura macroura carolinensis. Mourning Dove. A common summer resident of the valleys. Migration dates are May 29, 1910, September 26, 1910, and April 29, 1911. The latter is an exceptionally early date.

Cathartes aura septentrionalis. Turkey Vulture. Seen November 1, 1910, on a high divide between Dry Cottonwood Creek and Brown's Gulch, the boundary line of Deer Lodge and Silver Bow counties. Mr. George Norton, a forest ranger stationed on Dry Cottonwood Creek, states that these birds are permanent residents, and that he believes that a pair breed each year on a high hill back of his station.

Circus hudsonius. Marsh Hawk. Summer resident in the valleys. Breeds commonly in the marshes near Anaconda. Most abundant and noticeable in August and September.

Accipiter velox. Sharp-shinned Hawk. Common summer resident. I found several broods of young with their parents, in thickets of young spruce on Gold Creek, Powell County, in August. Seen once in winter at Silver Bow, January 2, 1911.

Accipiter cooperi. Cooper Hawk. Summer resident throughout the region but rather commoner in migration.

Buteo borealis calurus. Western Red-tail. Common summer resident in the mountains. Migration dates are April 5, 1910, and October 9, 1910.

Buteo swainsoni. Swainson Hawk. Seen but twice, at Silver Bow April 8, 1910, and in the lower Deer Lodge valley August 17, 1910.

Archibuteo ferrugineus. Ferruginous Rough-leg. Quite common about Gold Creek, Powell County, in August, 1910. Seen but once elsewhere, on Pipestone Creek, Jefferson County, October 9, 1910.

Aquila chrysaetos. Golden Eagle. Seen only in Deer Lodge County. Said to be quite common on the Big Hole River in the southwestern part of the county.

Falco mexicanus. Prairie Falcon. Seen quite commonly about Gold Creek, Powell County, in July and August, 1910.

Falco peregrinus anatum. Duck Hawk. Observed in spring migrations in several places in Deer Lodge and Silver Bow counties, on March 23, and April 19 and 20, 1910, and April 23, 1911.

Falco sparverius phalaena. Desert Sparrow Hawk. Common summer resident in the valleys. Migration dates are April 27, 1910, and September 25, 1910.

Pandion haliaetus carolinensis. Osprey. Seen on the Big Hole River, Silver Bow County, May 1 and 6, 1910.

Asio wilsonianus. Long-eared Owl. One secured on Mill Creek, Deer Lodge County, August 27, 1909. Another seen near Homestake, Jefferson County, June 25, 1910. In both cases the birds came about our camp fire in the early evening, apparently attracted by the light.

Asio flammeus. Short-eared Owl. Seen occasionally in the valleys. Evidently breeds in the marshes near Anaconda.

Cryptoglaux acadica acadica. Saw-whet Owl. Probably resident in the mountains throughout the region. Seen or heard in all the counties except Deer Lodge.

Bubo virginianus pallescens. Western Horned Owl. Resident throughout the region but much commoner about Gold Creek, Powell County, than elsewhere.

Nyctea nyctea. Snowy Owl. Occasional winter visitor in the valleys throughout the region.

Glaucidium gnoma gnoma. Pigmy Owl. Seen in German Gulch, Silver Bow County, May 16, 1910.

Ceryle alcyon. Belted Kingfisher. Common summer resident throughout the region.

Dryobates villosus monticola. Rocky Mountain Hairy Woodpecker. Common permanent resident. Broods of young were very common about Gold Creek, Powell County, in August, 1910.

Dryobates pubescens homorus. Batchelder Woodpecker. Permanent resident throughout the region but not common. Seen more frequently at lower elevations.

Picoides arcticus. Arctic Three-toed Woodpecker. An adult female taken on Divide Creek, Silver Bow County, April 20, 1910. Another observed at Elk Park, Jefferson County, September 8, 1910.

Picoides americanus americanus. Three-toed Woodpecker. An adult female secured on Pipestone Creek, Jefferson County, October 6, 1909, was referable to this subspecies.

Picoides americanus dorsalis. Alpine Three-toed Woodpecker. Observed several times in Silver Bow and Jefferson counties but not common. An adult male referable to this subspecies was taken in German Gulch, Silver Bow County, May 25, 1910.

Sphyrapicus varius nuchalis. Red-naped Sapsucker. A pair found nesting near Homestake, Jefferson County, in June, 1910, were the only ones observed.

Sphyrapicus thyroideus. Williamson Sapsucker. Observed on Divide Creek and Charcoal Gulch, Silver Bow County, on April 23 and 30, 1910. A nest containing young was found on Little Pipestone Creek, Jefferson County, July 6, 1910.

Phloeotomus pileatus abieticola. Northern Pileated Woodpecker. Abundant in the yellow pine and fir forests on Gold Creek and Willow Creek, Powell County. Not observed elsewhere in the region.

Asyndesmus lewisi. Lewis Woodpecker. Summer resident at lower elevations throughout the region. In my experience this species is not a bird of the mountains in Montana, but occurs principally below 5,000 feet in the Transition Zone, and is most abundant in cottonwood groves along the larger streams. I found a nest containing young in a dead cottonwood near Garrison, Powell County, July 26, 1910. Broods of young were very abundant about Gold Creek, Powell County, in late July and August. Migration dates are May 1, 1910, and September 21, 1910.

Colaptes auratus luteus. Northern Flicker.

Colaptes cafer collaris. Red-shafted Flicker. Flickers are common summer residents throughout the region. Most of the birds are hybrids or typical of the Red-shafted species, but yellow-shafted birds are not rare. Migration dates are March 29, 1910, and October 13, 1910.

Chordeiles virginianus henryi. Western Nighthawk. Common summer resident throughout the region. Newly hatched young were found on Pikes Peak Creek, Powell County, on August 6, 1910. Migration dates are June 2, 1910, and August 28, 1910.

Chordeiles virginianus sennetti. Sennett Nighthawk. A bird secured on Gold Creek, Powell County, August 26, 1910, was referable to this subspecies.

Selasphorus rufus. Rufous Hummingbird. Summer resident. Migration dates are May 30, 1910, and September 11, 1909, and August 24, 1910.

Stellula calliope. Calliope Hummingbird. An adult male seen on Fish Creek, Silver Bow County, July 13, 1910.

Tyrannus tyrannus. Kingbird. Summer resident of the valleys throughout the region.

Nuttallornis borealis. Olive-sided Flycatcher. Summer resident in the mountains. Migration dates are May 31, 1910, and September 5, 1909.

Myiochanes richardsoni richardsoni. Western Wood Pewee. Summer resident in cottonwood groves in the valleys. Rare above 4,500 feet elevation.

Empidonax hammondi. Hammond Flycatcher. Fairly common summer resident in the mountains of Jefferson and Silver Bow counties. Not seen elsewhere. First noted in spring May 28, 1910.

Empidonax wrighti. Wright Flycatcher. Noted commonly in migration in late May and August.

Otocoris alpestris arctica. Pallid Horned Lark. Winter resident in the valleys. Not common.

Otocoris alpestris leucolaema. Desert Horned Lark. Common summer resident of the valleys. Migration dates are March 3, 1910, and November 6, 1910.

Pica pica hudsonia. Magpie. Abundant permanent resident throughout the region.

Cyanocitta stelleri annectens. Black-headed Jay. Permanent resident in the mountains. Well distributed throughout the region but not common anywhere.

Perisoreus canadensis capitalis. Rocky Mountain Jay. Permanent resident in the mountains. In my experience this species keeps carefully out of sight and hearing during the spring and early summer months, and is apparently quite rare. Early in August it becomes suddenly abundant, and from then until next spring is one of the commonest and tamest of mountain birds.

Corvus brachyrhynchos hesperis. Western Crow. Summer resident. Migration date March 26, 1910. This species begins nesting in late April or early May, placing the nest ten or fifteen feet above the ground, in a willow or alder bush. It is usually in the most impenetrable part of a thicket, where the nest can be seen from a distance but not approached. It is easy to locate the nest, however, as the birds are usually on guard near it, perched conspicuously in the top of the thicket.

Nucifraga columbiana. Clarke Nutcracker. Common permanent resident in the mountains throughout the region. Broods of young are seen commonly during May and early June.

Molothrus ater ater. Cowbird. Common summer resident of the valleys. A pair secured near Anaconda in May, 1911, were referred by Dr. Bishop to the subspecies which he has recently described as *M. a. dwighti*.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. Summer resident in the lower Jefferson and Deer Lodge valleys. Seen but once elsewhere in the region, in the Silver Bow marshes, May 21, 1911.

Agelaius phoeniceus fortis. Thick-billed Red-wing. Summer resident in the Silver Bow marshes, and in suitable localities in the Jefferson and Deer Lodge valleys. Migration date April 7, 1910.

Sturnella neglecta. Western Meadowlark. Common summer resident of the valleys. Migration date March 29, 1910.

Euphagus cyanocephalus. Brewer Blackbird. Common summer resident.

Migration dates are April 24, 1910, May 12, 1911, and October 11, 1910.

Hesperiphona vespertina montana. Western Evening Grosbeak. A pair seen on Willow Creek, Powell County, September 14, 1910.

Pinicola enucleator montana. Rocky Mountain Pine Grosbeak. These birds are regular migrants and occasional winter residents in the mountains. I have not yet seen them in summer, but have found them at high elevations in late April and early September.

Carpodacus cassini. Cassin Purple Finch. Summer resident in the mountains, abundant during the migrations. My fall migration dates are from August 25, to September 9, 1910. The spring migrations appear to be very irregular, since I noticed this species from April 22 to May 18 in 1910, and from May 27 to June 10, 1911.

Loxia curvirostra minor. Crossbill. Abundant in the yellow pine forests about Gold Creek, Powell County, in July and August, 1910. Seen elsewhere in the region in but one place, in the mountains near Elk Park, Silver Bow County, September 2 to 8, 1910.

Leucosticte tephrocotis tephrocotis. Gray-crowned Rosy Finch.

Leucosticte tephrocotis littoralis. Hepburn Rosy Finch. Flocks of Rosy Finches, containing birds of both subspecies, though principally *L. t. tephrocotis*, are abundant during the migrations. Migration dates are March 12, 1910, October 29, 1910, and from March 19 to May 8, 1911. *L. t. tephrocotis* was also seen on May 27 in company with the next species, but *L. t. littoralis* was evidently absent this time.

Leucosticte atrata. Black Rosy Finch. On May 27, 1911, after a late spring snow-storm, I found a large flock of Rosy Finches near Anaconda. The flock, which I estimated to contain about 5,000 birds, was composed of about 90% of the gray-crowned species and 10% this species. I secured an adult male of this species which I found to be in advanced breeding condition. Four of the gray-crowned birds, which I could not avoid shooting with the black one, were also in breeding condition, but not nearly so far advanced. I believe that later investigation will show that the Black Rosy Finch breeds in the high mountains west of the Deer Lodge Valley. I did not have opportunity to visit these mountains during the proper season, but once when near the summit of Mount Haggin in early September, 1909, I saw a few birds which, because of the flight and call-note, I took to be Rosy Finches, but could not identify more certainly. I believe that this is the first recorded occurrence of the Black Rosy Finch in Montana.

Acanthis linaria linaria. Redpoll. Common winter resident in the valleys. In 1911 seen up to April 26, in company with Rosy Finches.

Astragalinus tristis pallidus. Western Goldfinch. Summer resident in the valleys. Not common.

Spinus pinus. Pine Siskin. Summer resident in the mountains. Migration dates are May 12, 1910, September 24, 1909, and September 8, 1910. This species also breeds occasionally in the valleys in the Transition Zone. I have seen it in cottonwood groves near Gold Creek, at an elevation of 4,100 feet, in July.

Calcarius lapponicus lapponicus. Lapland Longspur. Seen in the Deer Lodge valley near Race Track, October 30, 1910, and near Anaconda, May 30, 1911.

Poocetes gramineus confinis. Western Vesper Sparrow. Common summer resident in the valleys and mountain meadows. Migration dates are April 27, 1910, April 20, 1911, September 26, 1909, and September 21, 1910.

Passerculus sandwichensis savanna. Savannah Sparrow. Common summer resident. Migration dates are May 6, 1910 and May 12, 1911. During the spring migration in 1911 there was a heavy flight of Savannah Sparrows in the Deer Lodge

valley. From May 14 to 28 they were extremely abundant in grass lands throughout the valley.

Zonotrichia leucophrys leucophrys. White-crowned Sparrow. Common summer resident in the mountains. Migration date May 10, 1911. Breeds commonly on cut-over lands on the lower mountain slopes near Anaconda.

Zonotrichia leucophrys gambeli. Gambel Sparrow. Common migrant in the valleys and lower mountains. Migration dates are May 5-12, 1910, April 29-May 14, 1911, and September 21-October 9, 1910. I have yet to find this subspecies in Montana during the breeding season. I am inclined to think that the A. O. U. *Check-List* is in error in including Montana in the breeding range of this form and not in that of *Z. l. leucophrys*. I have found the latter a common breeding bird of the Canadian and upper Transition zones in all parts of western Montana that I have visited.

Spizella monticola ochracea. Western Tree Sparrow. Common winter resident in the valleys. Migration date October 30, 1910.

Spizella passerina arizonae. Western Chipping Sparrow. Common summer resident in the mountains. Migration dates are May 8, 1910, and May 5, 1911.

Junco hyemalis connectens. Shufeldt Junco.

Junco hyemalis montanus. Montana Junco. These two subspecies are common migrants but are difficult to separate. I have secured birds of both forms in the region however. Migration dates are March 10 to April 5, 1910, September 27 to October 13, 1909, and September 8 to October 14, 1910.

Junco hyemalis mearnsi. Pink-sided Junco. Common summer resident in the mountains. Migration dates are March 23, 1910, April 20, 1911, September 30, 1909, and September 25, 1910.

Melospiza melodia montana. Mountain Song Sparrow. Common summer resident of the valleys and mountains up to 7,000 feet elevation. Migration date March 31, 1910.

Melospiza lincolni lincolni. Lincoln Sparrow. Common summer resident in willow thickets along mountain streams. Migration date June 3, 1910.

Melospiza georgiana. Swamp Sparrow. A single bird of this species was observed closely at Elk Park, Silver Bow County, September 8, 1910. This makes, I believe, the second record of this species in Montana.

Passerella iliaca schistacea. Slate-colored Fox Sparrow. Common summer resident of willow thickets along the lower mountain streams. Migration dates, April 11, 1910, and August 27, 1910. This species is not common in the immediate vicinity of Anaconda, although conditions here seem to be as well suited to it as anywhere else in the region.

Pipilo maculatus arcticus. Arctic Towhee. Seen but once, near Anaconda, April 15, 1911.

Oreospiza chlorura. Green-tailed Towhee. Observed once, on Fish Creek, Silver Bow County, July 21, 1910.

Zamelodia melanocephala. Black-headed Grosbeak. Summer resident of willow thickets in the valleys. Migration dates are May 28, 1911, and August 27, 1910.

Passerina amoena. Lazuli Bunting. Common summer resident of the foothills, frequenting wild-rose thickets below 5,500 feet. Migration dates are May 23, 1910, and August 28, 1910.

Calamospiza melanocorys. Lark Bunting. Two birds of this species were seen in the Deer Lodge valley May 14, 1911.

Piranga ludoviciana. Western Tanager. Common summer resident of fir forests in the mountains. Migration dates are June 5, 1910, May 29, 1911, and

August 27, 1910. This species was very abundant in fall migration on Gold Creek, Powell County, after August 18, 1910.

Petrochelidon lunifrons lunifrons. Cliff Swallow. Common summer resident in the valleys. Migration dates are May 30, 1910, and May 28, 1911.

Hirundo erythrogastra. Barn Swallow. Summer resident in the valleys.

Tachycineta thalassina lepida. Northern Violet-green Swallow. Summer resident. Migration dates May 6, 1910, and May 12, 1911.

Stelgidopteryx serripennis. Rough-winged Swallow. Summer resident. Not common, but seen in the valleys throughout the region. Migration dates May 30, 1910, and May 21, 1911.

Bombycilla garrula. Bohemian Waxwing. Winter resident. Migration dates October 13, 1910, and March 29, 1910.

Bombycilla cedrorum. Cedar Waxwing. Summer resident. I found a nest containing young near Anaconda, August 17, 1910.

Lanius borealis. Northern Shrike. Winter resident in the valleys. Migration date October 23, 1910.

Lanius ludovicianus migrans. Migrant Shrike. On May 14, 1911, I secured a bird of this species, which Dr. Bishop stated was certainly not *L. l. excubitorides* and believed was probably of this subspecies.

Vireosylva olivacea. Red-eyed Vireo. One seen near Anaconda June 3, 1911.

Vireosylva gilva swainsoni. Western Warbling Vireo. Common summer resident. Most abundant in aspen groves in the mountains. Migration dates May 28, 1910, June 3, 1911, and August 27, 1910.

Lanivireo solitarius cassinii. Cassin Vireo. I saw several of these birds on Willow Creek, Powell County, September 12 and 13, 1910.

Vermivora celata (subspecies?). Orange-crowned Warbler. Summer resident in the mountains. More abundant in migrations. Occurs in the breeding season principally in aspen groves. Migration dates May 28, 1910, May 27, 1911, and September 4, 1909.

Dendroica aestiva aestiva. Yellow Warbler. Common summer resident of the valleys. Migration dates May 28, 1910, and May 21, 1911.

Dendroica auduboni auduboni. Audubon Warbler. Summer resident in the mountains. Migration dates May 6, 1910, May 1, 1911, and September 30, 1909.

Seiurus noveboracensis notabilis. Grinnell Water-Thrush. Seen twice in German Gulch, Silver Bow County, May 16, 1910, and on Gold Creek, Powell County, August 20, 1910.

Oporornis tolmiei. Macgillivray Warbler. Summer resident in the foothills up to 5,500 feet.

Geothlypis trichas occidentalis. Western Yellowthroat. Summer resident of the valleys and foothills to about 5,500 feet. Migration dates are May 21, 1911, and September 21, 1910.

Wilsonia pusilla pileolata. Pileolated Warbler. Summer resident of willow thickets in the mountains above 5,500 feet. Occurs in the valleys in migrations. Migration dates are May 28, 1910, May 14, 1911, September 14, 1909, and September 17, 1910.

Setophaga ruticilla. Redstart. Rather rare summer resident. Migration dates May 28, 1910, May 21, 1911, and August 21, 1910.

Anthus rubescens. Pipit. Regular fall migrant in the valleys, usually found in company with Horned Larks. Also very abundant in the spring of 1911, though this is the only year that I have seen it in spring in Montana. Migration dates are September 14 to October 17, 1909, September 11 to October 23, 1910, and April 15 to May 20, 1911.

Cinclus mexicanus unicolor. Dipper. Permanent resident along mountain streams. Not very common in this region, probably because the streams are mostly small and many of them kept continually muddy by placer mining. Though a permanent resident a noticeable migration takes place in March and October, when individuals may be found far from their usual haunts, occasionally in the valleys, and often swimming on the surface of mountain lakes. They winter commonly along Warm Springs Creek, near Anaconda and along the Boulder River, in Jefferson County, places where to my knowledge they are never found in summer.

Oreoscoptes montanus. Sage Thrasher. Seen in the sage-brush near Silver Bow, May 21, 1910.

Dumetella carolinensis. Catbird. Summer resident in the valleys. Migration date May 28, 1911.

Salpinctes obsoletus obsoletus. Rock Wren. Summer resident in suitable localities up to 6,000 feet. Migrations appear to be irregular. In 1910 a single individual was seen on April 13 and the species became common on May 1. In 1911 none were seen until May 20. Fall dates are September 8, 1909, and September 18, 1910. The record for September 8, 1909, is that of a pair of birds seen in slide rock, near the head of Ten-mile Creek, Deer Lodge County, at an elevation of 9,500 feet, more than 3,000 feet higher than the species usually occurs.

Nannus hiemalis pacificus. Western Winter Wren. Seen in German Gulch, Silver Bow County, on May 23 and 24, 1910, and one secured on the latter date. Another seen on Gold Creek, Powell County, August 15, 1910.

Telmatoodytes palustris plesius. Western Marsh Wren. Seen near Gold Creek, Powell County, September 21, 1910, and near Anaconda, April 18, 1911. Specimens were secured on both dates and referred to this subspecies by Dr. Bishop, though one of the Anaconda specimens was not typical but like *T. p. iliacus* in some respects.

Certhia familiaris montana. Rocky Mountain Creeper. Summer resident of spruce forests in the mountains. Migration dates are April 26, 1910, October 14, 1909, and October 9, 1910.

Sitta carolinensis nelsoni. Rocky Mountain Nuthatch. Summer resident in the mountains but not common. Seen most frequently at high elevation in white-bark pine forests in September and October.

Sitta canadensis. Red-breasted Nuthatch. Summer resident in the yellow pine forests of Powell County. A migrant elsewhere in the region. Migration dates are April 18, 1910, and October 2, 1909.

Penthestes atricapillus septentrionalis. Long-tailed Chickadee. Common permanent resident of the willow thickets and cottonwood groves of the valleys.

Penthestes gambeli gambeli. Mountain Chickadee. Common permanent resident of the mountains.

Regulus satrapa olivaceus. Western Golden-crowned Kinglet. Summer resident of spruce forests in the mountains. Most abundant in migrations. According to the *Check-List*, *R. s. satrapa* should be the breeding form in Montana. Perhaps this is the case, for though I have taken several birds referable to *R. s. olivaceus*, they have all been fall migrants and not breeding birds.

Regulus calendula calendula. Ruby-crowned Kinglet. Abundant summer resident of fir forests in the mountains. Migration dates are March 31, 1910 (an unusually early date), April 20, 1911, September 26, 1909, and September 20, 1910. There appear to be two forms of kinglet in this region, differing from each other in habitat and song but not perceptibly in plumage or measurements. One form is only a migrant, arriving a week or two earlier than the other, inhabiting willow

thickets in the valleys and along the mountain streams and singing exactly like eastern birds of this species. The other is the breeding bird of the region. It inhabits the fir forests in the mountains and has a totally different song, as described in the *Auk*, XXVIII, 1911, p. 48. I secured adult males of both forms but could find no difference in plumage or measurements.

***Myadestes townsendi*.** Townsend Solitaire. A common summer resident in the mountains throughout most of the region, particularly in the very rocky country in parts of Jefferson and Silver Bow counties. Migration dates March 15, 1910, October 2, 1909, and October 14, 1910.

***Hylocichla fuscescens salicicola*.** Willow Thrush. Common summer resident in willow thickets of the valleys and lower mountain streams. Migration dates June 5, 1910, June 5, 1911, and August 27, 1910.

***Hylocichla ustulata swainsoni*.** Olive-backed Thrush. Common summer resident of the mountains. Migration dates May 16, 1910, May 14, 1911, and August 25, 1910. A large flight of thrushes of this and the next species was noted in late August on Gold Creek. On one unusually cold day during the flight I found an Olive-back, so numb with cold that I caught it in my hands.

***Hylocichla guttata auduboni*.** Audubon Hermit Thrush. Common summer resident of the mountains. Noticeably much commoner than farther east in Montana. Migration dates are May 25, 1910, May 17, 1911, September 28, 1909, and September 10, 1910.

***Planesticus migratorius propinquus*.** Western Robin. Common summer resident in both valleys and mountains. Also a rare winter resident. Migration dates are March 16, 1910, October 23, 1909, and October 13, 1910.

***Sialia currucoides*.** Mountain Bluebird. Common summer resident. Migration dates, March 10, 1910, and October 7, 1909.

BIRDS OF A MOHAVE DESERT OASIS

By CHESTER LAMB

THE locality of which I am about to write, is known as the Daggett region, formerly famous on account of its Borax mines. It is situated in the Mohave River Valley about forty miles northward from the south-central edge of the Mohave Desert, and one hundred and sixty miles northeast of Los Angeles. The valley here is about ten miles wide; on the north are the Calico Mountains, and on the south the Ord Mountains. These are low ranges entirely bare of vegetation except the ever present creosote bush. The floor of the valley is about two thousand feet above sea level.

In about the center of the valley flows the Mohave River, that is, it flows about three months of the year, from February to May, and the rest of the year it is a burning streak of sand except in a few places where the water comes to the surface and where cottonwoods, willows and mesquites grow, forming veritable oases.

It is at one of these oases that, with a few exceptions, all my observations were made. In fact, of the one hundred and thirty-three species and subspecies noted, only forty-three were seen at all at other points.

The oasis in which my observations were made is nine miles east of the town of